

IN THE CLAIMS:

Kindly rewrite Claims 1-31 as follows, in accordance with 37 C.F.R. § 1.121:

1. (currently amended) An isolated strain of *Methylophilus methylotrophus* having L-lysine-producing ability, wherein dihydrodipicolinate synthase activity is enhanced as compared to a wild-type *Methylophilus methylotrophus* strain, and wherein said dihydrodipicolinate synthase is selected from the group consisting of:

a) a protein encoded by the DNA sequence depicted in a nucleotide sequence comprising nucleotide numbers 1268 to 2155 of SEQ ID NO:9; and

b) a protein having dihydrodipicolinate synthase activity and encoded by ~~a the~~ DNA sequence ~~which hybridizes to the DNA sequence depicted in a nucleotide sequence~~ comprising nucleotide numbers 1268 to 2155 of SEQ ID NO:9 ~~under stringent conditions, wherein said conditions comprise washing at 60°C in a salt solution of 1xSSC and 0.1%SDS, except that substitution, deletion, addition, or inversion of one to 10 amino acids is present in the amino acid sequence of said protein.~~

2. (previously presented) The isolated strain according to claim7, wherein the L-amino acid is L-lysine.

3. (cancelled)

4. (cancelled)

5. (currently amended) An isolated strain of *Methylophilus methylotrophus* having L-lysine-producing ability, wherein dihydrodipicolinate synthase activity and aspartokinase activity are enhanced as compared to a wild-type *Methylophilus methylotrophus* strain, and wherein said dihydrodipicolinate synthase is selected from the group consisting of:

a) a protein encoded by the DNA sequence depicted in a nucleotide sequence comprising nucleotide numbers 1268 to 2155 of SEQ ID NO:9; and

b) a protein having dihydrodipicolinate synthase activity and encoded by ~~a the~~ DNA sequence ~~which hybridizes to the DNA sequence depicted in a nucleotide sequence~~ comprising nucleotide numbers 1268 to 2155 of SEQ ID NO:9 ~~under stringent conditions, wherein said conditions comprise washing at 60°C in a salt solution of 1xSSC~~

and 0.1%SDS, except that substitution, deletion, addition, or inversion of one to 10 amino acids is present in the amino acid sequence of said protein.

and wherein said aspartokinase is selected from the group consisting of:

a) a protein encoded by the DNA sequence depicted in a nucleotide sequence comprising nucleotide numbers 510 to 1736 of SEQ ID NO:5;

b) a protein having aspartokinase activity and encoded by ~~a the~~ DNA sequence ~~which hybridizes to the DNA sequence depicted in a nucleotide sequence comprising nucleotide numbers 510 to 1736 of SEQ ID NO:5 under stringent conditions, wherein said conditions comprise washing at 60°C in a salt solution of 1xSSC and 0.1%SDS,~~ except that substitution, deletion, addition, or inversion of one to 10 amino acids is present in the amino acid sequence of said protein.

6. (cancelled)

7. (currently amended) An isolated strain of *Methylophilus methylotrophus* having L-amino acid-producing ability, wherein aspartokinase activity is enhanced as compared to wild-type *Methylophilus methylotrophus* strain, and wherein said aspartokinase is selected from the group consisting of:

a) a protein encoded by the DNA sequence depicted in a nucleotide sequence comprising nucleotide numbers 510 to 1736 of SEQ ID NO:5; and

b) a protein having aspartokinase activity and encoded by ~~a the~~ DNA sequence ~~which hybridizes to the DNA sequence depicted in a nucleotide sequence comprising nucleotide numbers 510 to 1736 of SEQ ID NO:5 under stringent conditions, wherein said conditions comprise washing at 60°C in a salt solution of 1xSSC and 0.1%SDS,~~ except that substitution, deletion, addition, or inversion of one to 10 amino acids is present in the amino acid sequence of said protein.

8. (previously presented) The isolated strain according to claim 5, wherein an activity or activities of one, two, or three of enzymes selected from the group consisting of aspartic acid semialdehyde dehydrogenase, dihydroadipate reductase and diaminopimelate decarboxylase is/are enhanced as compared to a wild-type

Methylophilus methylotrophus strain.

9. (currently amended) The isolated strain according to claim 5, wherein the dihydrodipicolinate synthase activity and the aspartokinase activity are enhanced as compared to a wild-type *Methylophilus methylotrophus* strain by introducing into cells ~~said a~~ DNA sequence coding for said dihydrodipicolinate synthase and ~~said a~~ DNA sequence coding for said aspartokinase.

10. (previously presented) The isolated strain according to claim 7, wherein activities of homoserine dehydrogenase, homoserine kinase and threonine synthase are enhanced as compared to wild-type *Methylophilus methylotrophus* strain, and wherein said isolated strain has L-threonine-producing ability.

11. (cancelled)

12. (previously presented) A method for producing L-lysine, which comprises culturing said strain as defined in claim 1 in a medium, accumulating said L-lysine in said medium, and collecting the L-lysine from said medium.

13. (original) The method according to claim 12, wherein the medium contains methanol as a main carbon source.

14. (withdrawn)

15. (withdrawn)

16. (currently amended) An isolated DNA which codes for a protein selected from the group consisting of:

- (A) a protein comprising the amino acid sequence of SEQ ID NO: 6, and
- (B) a protein comprising an amino acid sequence of SEQ ID NO:6 except that substitution, deletion, insertion, addition, or inversion of ~~one or several~~ one to 10 amino

acids in said amino acid sequence is present, and wherein said protein has aspartokinase activity.

17. (currently amended) The DNA according to claim 16, wherein said DNA is selected from ~~a~~the group consisting of:

(a) a DNA comprising ~~a~~the nucleotide sequence of the nucleotide numbers 510 to 1736 of SEQ ID NO:5; and

(b) a DNA ~~which is able to hybridize with a probe having the nucleotide sequence of the nucleotide numbers 510 to 1736 of SEQ ID NO:5, except that~~
substitution, deletion, addition, or inversion of one to 10 amino acids is present in the amino acid sequence of a protein encoded by said DNA or a part thereof under stringent conditions, and wherein said conditions comprise washing at 60°C in a salt solution of 1XSSC and 0.1% SDS, and wherein said DNA codes for a protein having aspartokinase activity.

18. (withdrawn)

19. (withdrawn)

20. (currently amended) An isolated DNA which codes for a protein selected from the group consisting of:

(E) a protein comprising the amino acid sequence of SEQ ID NO:10, and

(F) a protein comprising an amino acid sequence of SEQ ID NO:10 except that substitution, deletion, insertion, addition, or inversion of ~~one or several~~one to 10 amino acids in said amino acid sequence is present, and wherein said protein has dihydrodipicolinate synthase activity.

21. (currently amended) The DNA according to claim 20, wherein said DNA is selected from the group consisting of:

(e) a DNA comprising ~~a~~the nucleotide sequence of the nucleotide numbers 1268 to 2155 of SEQ ID NO:9; and

(f) a DNA ~~which is able to hybridize with a probe~~ having the nucleotide sequence of the nucleotide numbers 1268 to 2155 of SEQ ID NO:9 except that substitution, deletion, addition, or inversion of one to 10 amino acids is present in the amino acid sequence of a protein encoded by said DNA or a part thereof under stringent conditions, and wherein said conditions comprise washing at 60°C in a salt solution of 1XSSC and 0.1%SDS, and wherein said DNA codes for a protein having dihydridipicolinate synthase activity.

22. (withdrawn) The DNA which codes for a protein defined in the following (G) or (H):

(G) a protein which has the amino acid sequence of SEQ ID NO:12, or

(H) a protein which has an amino acid sequences of SEQ ID NO:12 including substitution, deletion, insertion, addition, or inversion of one or several amino acids, and has dihydridipicolinate reductase activity.

23. (withdrawn) The DNA according to claim 22, which is a DNA defined in the following (g) or (h):

(g) a DNA which has a nucleotide sequence comprising the nucleotide sequence of the nucleotide numbers 2080 to 2883 of SEQ ID NO:11 or

(h) a DNA which is hybridizable with a probe having the nucleotide sequence of the nucleotide numbers 2080 to 2883 of SEQ ID NO:11 or a part thereof under a stringent condition, and codes for a protein having dihydridipicolinate reductase activity.

24. (withdrawn) The DNA which codes for a protein defined in the following (I) or (J):

(I) a protein which has the amino acid sequence of SEQ ID NO:14, or

(J) a protein which has an amino acid sequences of SEQ ID NO:14 including substitution, deletion, insertion, addition, or inversion of one or several amino acids, and has diaminopimelate decarboxylase activity.

25. (withdrawn) The DNA according to claim 24, which is a DNA defined in the

following (i) or (j):

- (i) a DNA which has a nucleotide sequence comprising the nucleotide sequence of the nucleotide numbers 751 to 1995 of SEQ ID NO:13; or
- (j) a DNA which is hybridizable with a probe having the nucleotide sequence of the nucleotide numbers 751 to 1995 of SEQ ID NO:13 or a part thereof under a stringent condition, and codes for a protein having diaminopimelate decarboxylase activity.

26. (previously presented) The isolated strain according to claim 1, wherein an activity or activities of one, two, or three of enzymes selected from the group consisting of aspartic acid semialdehyde dehydrogenase, dihydrodipicolinate reductase and diaminopimelate decarboxylase is/are enhanced as compared to a wild-type *Methylophilus methylotrophus* strain.

27. (previously presented) The isolated strain according to claim 2, wherein an activity or activities of one, two, or three of enzymes selected from the group consisting of aspartic acid semialdehyde dehydrogenase, dihydrodipicolinate reductase and diaminopimelate decarboxylase is/are enhanced as compared to a wild-type *Methylophilus methylotrophus* strain.

28. (previously presented) A method for producing L-lysine, which comprises culturing said strain as defined in claim 5 in a medium, accumulating said L-lysine in said medium, and collecting the L-lysine from said medium.

29. (previously presented) The method according to claim 28, wherein the medium contains methanol as a main carbon source.

30. (previously presented) A method for producing an L-amino acid, which comprises culturing said strain as defined in claim 7 in a medium, accumulating said L-amino acid in said medium, and collecting the L-amino acid from said medium.

31. (previously presented) The method according to claim 30, wherein the

medium contains methanol as a main carbon source.